SPANISH PATENTS AND TRADEMARKS

OFFICE

OFFICIAL CERTIFICATE

I hereby certify that the annexed documents are an exact copy of the application for PATENT of INVENTION number 200202598 filed with this Office on date October 31, 2002

Madrid, September 12, 2003

The Director of the Patents Department
and Technological Information

(signature)
Mª del MAR BIARGE MARTINEZ

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SPANISH PATENTS AND TRADEMARKS OFFICE

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P-200202598

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(8) FORM OF OBTENTION OF RIGHTS
☒ EMPLOYER (S) ☐ CONTRACT ☐ SUCCESSION

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(9) TITLE OF THE INVENTION

ARMCHAIR FOR PUBLIC TRANSPORT VEHICLES

(10) INVENTION CONCERNING A MICROBIOLOGICAL PROCESS AS PER ART. 25,2 L.P. ☐ YES ☐ NO

(11) OFFICIAL EXHIBITIONS
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(13) THE APPLICANTS REQUEST THE EXEMPTION OF THE PAYMENT OF TAXES PROVIDED IN ART. 162 L.P. ☐ YES ☐ NO

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(15) LIST OF ANNEXED DOCUMENTS
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☒ REPRESENTATION FORM
☒ PROOFS
☐ RECEIPT OF PAYMENT OF TAXES
☐ SHEET OF COMPLEMEMTARY. INFORMATIONS
☒ OTHER Declaration of inventorship

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SIGNATURE OF THE APPLICANT OR REPRESENTATIVE
Adelaida Ponti Sales

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PATENT
ABSTRACT AND GRAPHIC

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ARMCHAIR FOR PUBLIC TRANSPORT VEHICLES

The armchair comprises a seat (1) where the armchair user is seated and at least one armrest (3) that can be folded between a substantially horizontal position and a substantially vertical position, that is characterised in that said at least one armrest (3) describes a downward trajectory when moved from the substantially horizontal position to the substantially vertical position.

Therefore, the armrest does not bother the armchair user when it is in its substantially vertical position, thus enabling manufacturers to exploit the maximum width allowed for this type of armchairs.

SPANISH PATENT
AND TRADEMARK OFFICE

PATENT OF INVENTION
Application number: P200202598
Date of filing: 31.10.2002

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Title: ARMCHAIR FOR PUBLIC TRANSPORT VEHICLES

Abstract:

The armchair comprises a seat (1) where the armchair user is seated and at least one armrest (3) that can be folded between a substantially horizontal position and a substantially vertical position, that is characterised in that said at least one armrest (3) describes a downward trajectory when moved from the substantially horizontal position to the substantially vertical position.

Therefore, the armrest does not bother the armchair user when it is in its substantially vertical position, thus enabling manufacturers to exploit the maximum width allowed for this type of armchairs.

ARMCHAIR FOR PUBLIC TRANSPORT VEHICLES

This invention refers to an armchair for public transport vehicles that comprises folding armrests that enable manufacturers to exploit the maximum width allowed for this type of armchairs.

BACKGROUND OF THE INVENTION

Armchairs used currently in public transport vehicles, such as coaches, trains, buses or airplanes, comprise a seat in which the armchair user is seated alongside a backrest. To increase the user's comfort, the backrest may be articulated to the seat, thanks to which it can be reclined or be in a substantially vertical position.

This type of armchairs usually also comprise armrests that can be folded from a substantially horizontal position to a substantially vertical position.

Armrests are usually articulated in the back part of the seat so that when the armrest is placed in its vertical position parting from the horizontal position, the armrest describes an upward trajectory that leaves the armrest in a vertical position by the backrest. This position leaves practically the whole of the armrest protruding from the front part of the seat.

This type of armrests are inconvenient because they are a bother when in a vertical position, as they take up space, an aspect that is extremely important given that the armchairs used in public transport vehicles are only allowed a maximum width.

This inconvenience is increased when two armchairs are placed side by side with armrests between both armchairs. Given that they take up space when in a vertical position, armchairs are usually equipped with a single armrest measuring the normal width of a regular

armrest, which implies an inconvenience for the users of both armchairs.

DESCRIPTION OF THE INVENTION

The armchair of the invention manages to solve the aforementioned inconveniences, and presents other advantages that will be described hereunder.

The armchair for public transport vehicles of this invention comprises a seat in which the armchair user is seated and at least one armrest that can be folded between a substantially horizontal position and a substantially vertical position, which is characterised in that said at least one armrest describes a downward trajectory when being moved from the substantially horizontal position to the substantially vertical position.

Preferably, said trajectory described by said at least one armrest is a curved trajectory and said at least one armrest has a curved configuration.

Advantageously, said at least one armrest slides along a guide.

The armchair of this invention, which also comprises a backrest, includes the feature that when said at least one armrest is placed in its substantially vertical position, it does not protrude frontally from said backrest.

Therefore, thanks to the armchair of this invention, the armrest does not bother the armchair user when it is in its substantially vertical position, thus enabling manufacturers to exploit the maximum width allowed for this type of armchairs.

When there are two armchairs like the one conceived in this invention placed side by side, there can be two armrests or one double-width armrest placed between them.

BRIEF DESCRIPTION OF THE DRAWINGS

So as to enable a better understanding of the terms stated above, a series of drawings have been included to, schematically and illustratively, represent a practical case of the embodiment.

Figure 1 is a side elevation view of the armchair of this invention, with the armrest in the substantially horizontal position;

Figure 2 is a side elevation view of the armchair of this invention, with the armrest in the substantially vertical position;

Figure 3 is a frontal elevation view of two armchairs of the present invention placed side by side;

Figure 4 is a side elevation view of the side of the armchair of this invention, with the armrest in the substantially horizontal position; and

Figure 5 is a side elevation view of the side of the armchair of this invention, with the armrest in the substantially vertical position.

DESCRIPTION OF A PREFERRED EMBODIMENT

As can be appreciated in the figures, the armchair of this invention comprises a seat 1, where the armchair user is seated, a backrest 2, that is preferably articulated to the seat so that it can be placed in the position that appears in figures 1 and 2 or can be reclined, and folding armrests 3, one on each side of the seat 1.

These armrests 3 can be folded between a substantially horizontal position (figures 1 and 4) and a substantially vertical position (figures 2 and 5).

According to the invention, the armrest 3

describes a downward curved trajectory when the armrest 3 goes from the substantially horizontal position to the substantially vertical position, as can be observed better in figures 4 and 5.

The armrest 3 of the armchair of this invention has a curved profile and slides down a guide 4 that is located on the side of the seat 1.

As can be seen in figure 2, the armrest 3, when in the vertical position, is mostly beneath the level of the seat 1, and does not protrude frontally from the backrest.

Furthermore, as can be seen on figure 3, the armrest 3 is located in a space 5 that has been created in the sides of the backrest 2.

Thus, when in a vertical position, the armrest 3 does not bother the armchair user, as it is housed in a position in which it does not protrude from the structure of the armchair. Therefore, the manufacturer can completely exploit the maximum width allowed for the seat.

When two armchairs of this invention are placed side by side (figure 3), the armrest 3 between both armchairs advantageously has a width that is double that of other armrests, in opposition to the armchairs used at present.

Although this refers to a specific embodiment of the invention, obviously a person skilled in the art will know that the armchair described herein may undergo many variations and modifications and that all the details mentioned may be replaced by others that are technically equivalent, without departing from the scope of protection defined by the claims attached.

C L A I M S

1. Armchair for public transport vehicles, which comprises a seat (1) where the armchair user is seated and at least one armrest (3) that can be folded between a substantially horizontal position and a substantially vertical position, characterised in that said at least one armrest (3) describes a downward trajectory when moved from the substantially horizontal position to the substantially vertical position.

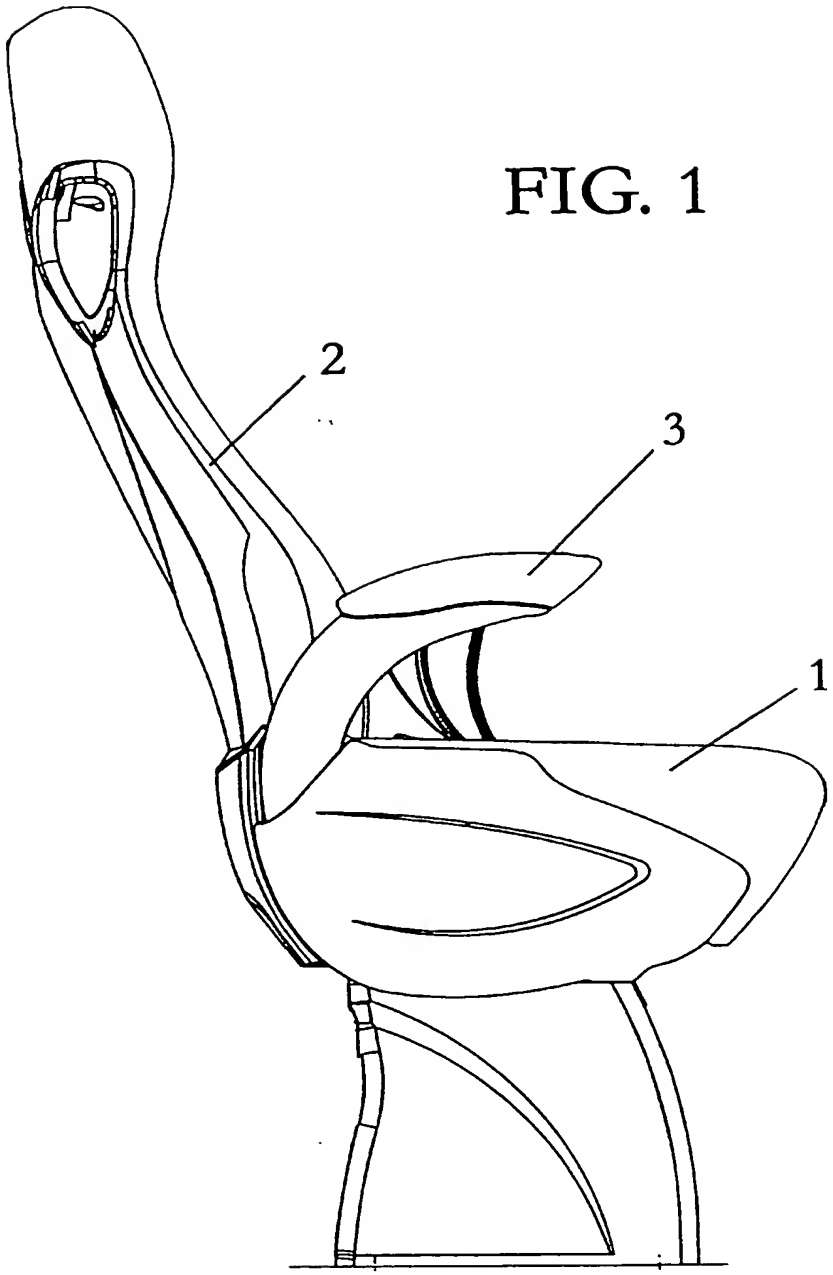
2. Armchair according to claim 1, characterised in that the trajectory described by said at least one armrest (3) is a curved trajectory.

3. Armchair according to claim 1 or 2, characterised in that said at least one armrest (3) has a curved configuration.

4. Armchair according to any of the previous claims, characterised in that said at least one armrest (3) slides along a guide (4).

5. Armchair according to any of the previous claims, that also comprises a backrest (2), characterised in that said at least one armrest (3), in its substantially vertical position, does not protrude frontally from said backrest(2).

FIG. 1



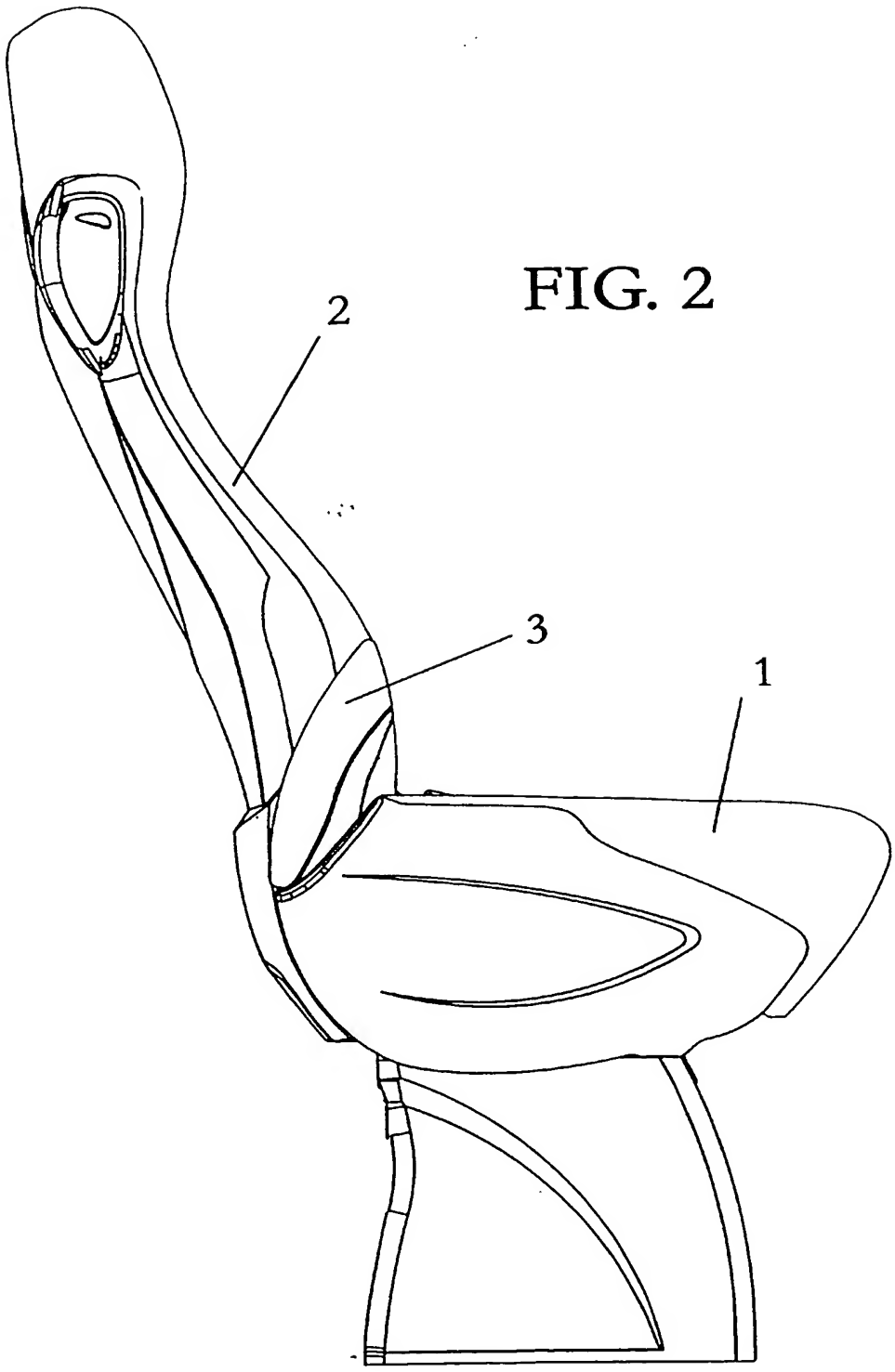


FIG. 2

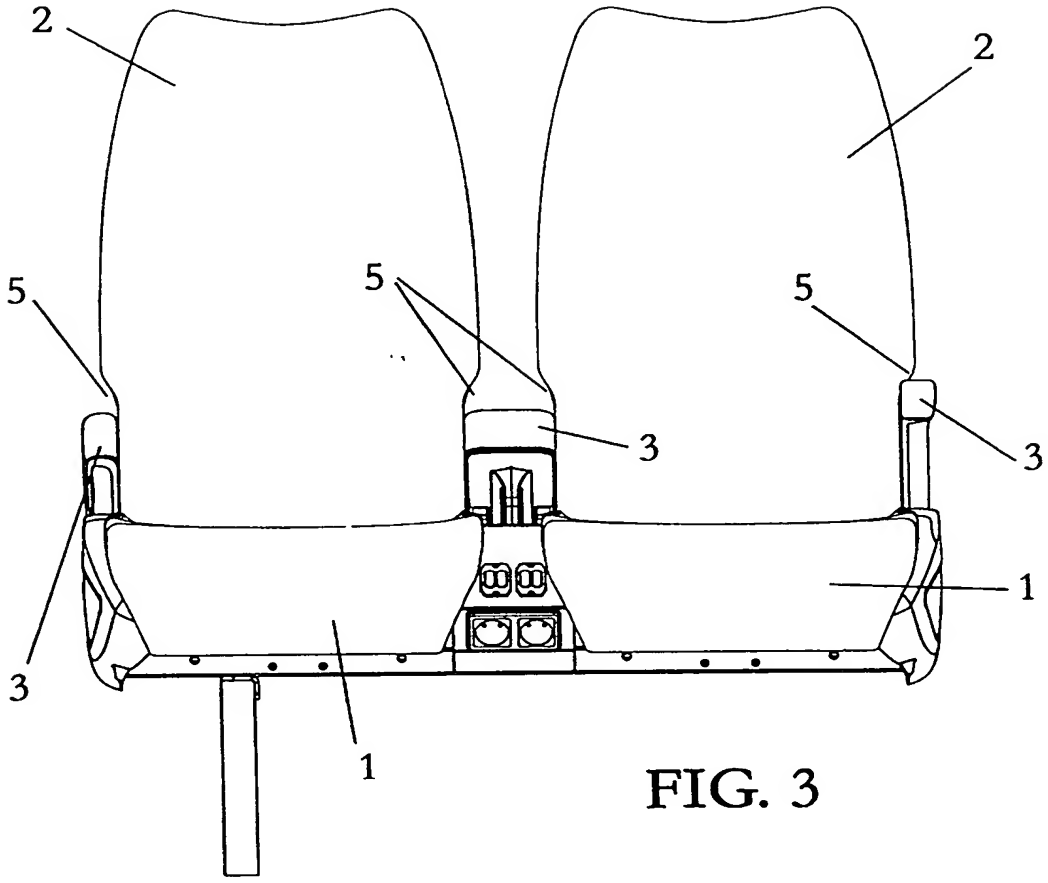


FIG. 3

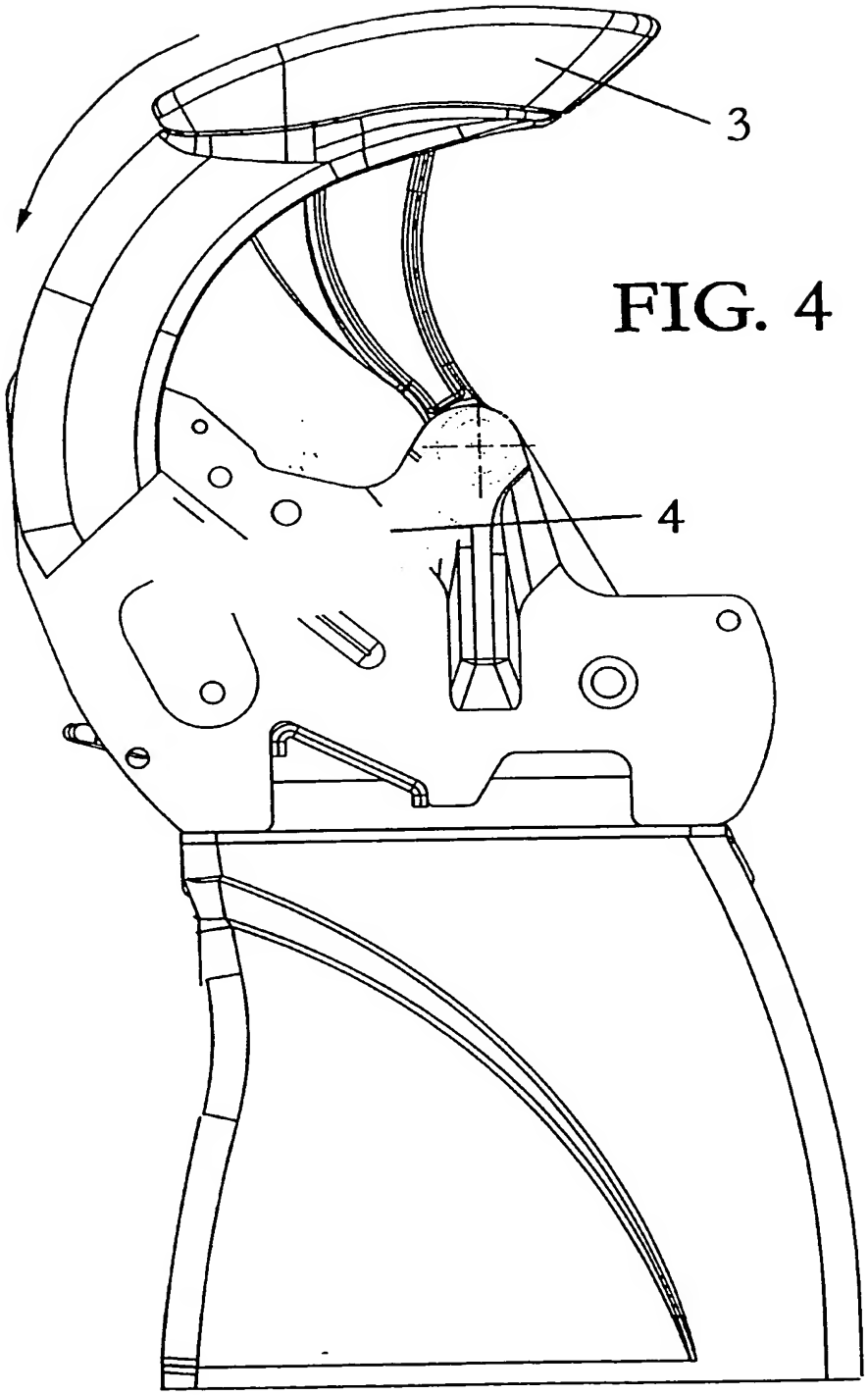


FIG. 4

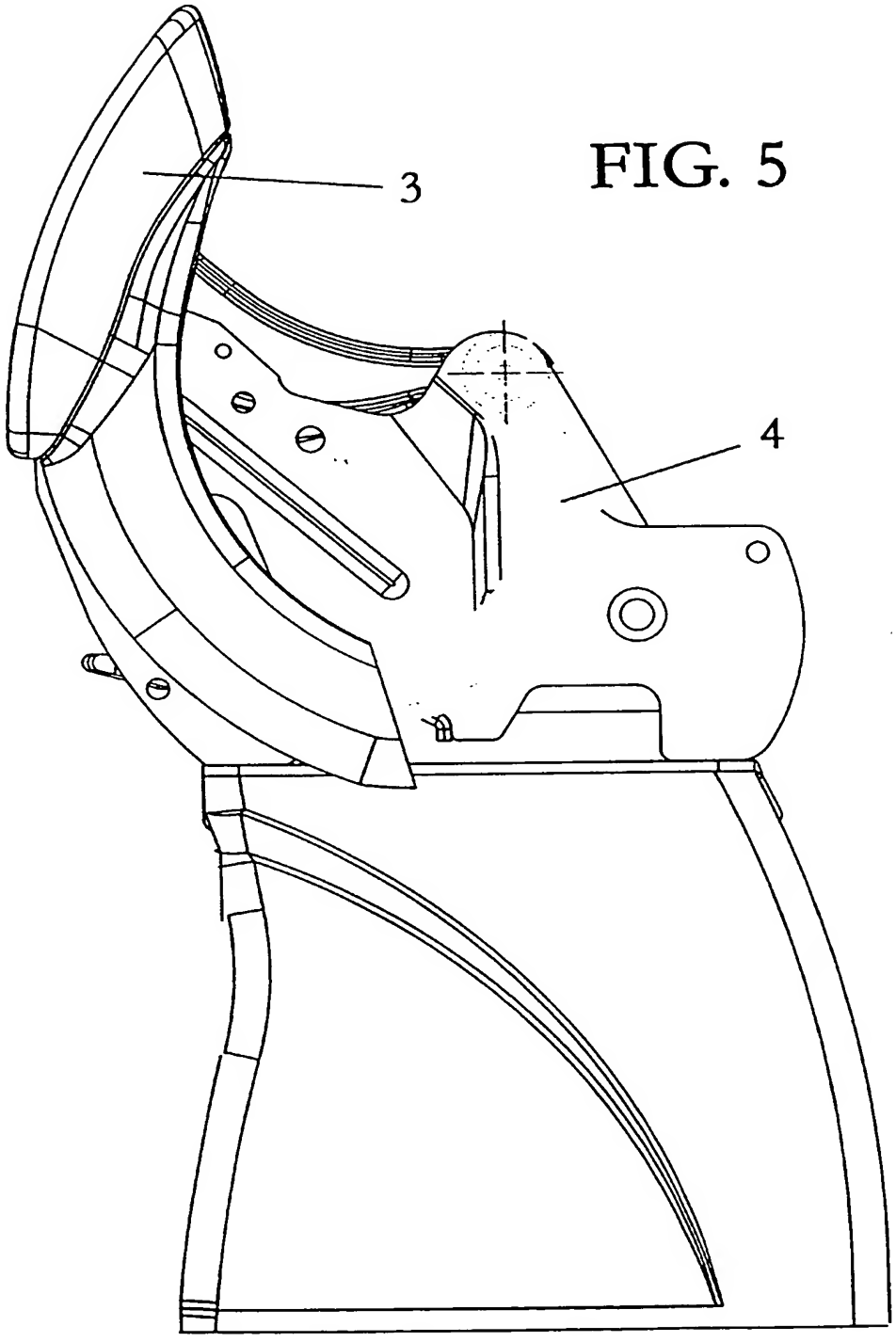


FIG. 5